

Title (en)

Electric generation control system for hybrid vehicle

Title (de)

Regelsystem für die Stromerzeugung eines Hybridfahrzeuges

Title (fr)

Système de réglage d'un générateur de courant pour un véhicule hybride

Publication

**EP 0698522 B1 20000308 (EN)**

Application

**EP 95305868 A 19950822**

Priority

JP 19707294 A 19940822

Abstract (en)

[origin: EP0698522A1] When the remaining capacity of a battery (3) on a hybrid vehicle is smaller than a threshold value or the battery (3) is unable to output the amount of electric energy required to propel the hybrid vehicle with a propulsive electric motor (4), an engine (16) is started by a generator (17) which operates in a motor mode. The engine (16) rotational speed is brought to a predetermined value by the generator (17), at which time fuel is supplied to the engine (16). After the engine (16) has achieved full combustion and has been warmed up, the generator (17) operates in a generator mode to generate electric energy which is supplied to the battery (3) and the propulsive electric motor (4). The threshold value for the remaining capacity of the battery (3) is greater as the atmospheric pressure (ATp) is lower. Therefore, if the vehicle is running under low atmospheric pressure such as on high ground, the electric energy is supplied from the generator (17) to the battery (3) and the propulsive electric motor (4) at an early stage where the capacity of the battery (3) is relatively high. The generator (17) also starts to generate electric energy when the battery is unable to output an amount of electric energy sufficient enough to propel the vehicle. <MATH>

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IPC 8 full level

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CPC (source: EP US)

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Cited by

DE102004025460A1; EP0903492A3; CN114412651A; FR2790428A1; CN111868359A; DE102007002188A1; DE102007002188B4; EP1020640A3; EP0883225A1; FR2941054A1; EP2306614A1; FR2783763A1; CN102076540A; DE10049510B4; GB2434928B; GB2406319A; GB2406319B; US6705416B1; US7513325B2; US8509977B2; US6742487B2; WO0063041A1; WO02066974A3; WO2010010039A1; WO0153128A3; US7216729B2; US8521355B2; US8666584B2; US7781902B2; US6912889B2; US6983640B1; US7866424B2

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